MOTOROLA
intelligence everywhere™

CP150™ /CP200™

Commercial Series

Two-Way Radio User Guide

Manuel de l'utilisateur

de la radio bidirectionnelle

Radius®

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SAFETY AND WARRANTY

PRODUCT SAFETY AND RF EXPOSURE COMPLIANCE

Before using this product, read the operating instructions for safe usage contained in the Product Safety and RF Exposure booklet enclosed with your radio.

ATTENTION!

This radio is restricted to occupational use only to satisfy FCC RF energy exposure requirements. Before using this product, read the RF energy awareness information and operating instructions in the Product Safety and RF Exposure booklet enclosed with your radio (Motorola Publication part number 68P81095C98) to ensure compliance with RF energy exposure limits.

For a list of Motorola-approved antennas, batteries, and other accessories, visit the following web site which lists approved accessories: http://www.motorola.com/cgiss/index.shtml.

BATTERY INFORMATION

Charging Batteries

This product is powered by a nickel-cadmium (NICd) or lithium-ion (Lilon) rechargeable battery. Charge the battery before use to ensure optimum capacity and performance. The battery was designed specifically to be used with a Motorola charger. Charging in non-Motorola equipment may lead to battery damage and void the battery warranty.

Note: When charging a battery attached to a radio, turn the radio off to ensure a full charge.

The battery should be at about 77°F (25°C) (room temperature), whenever possible. Charging a cold battery (below 50° F [10°C]) may result in leakage of electrolyte and ultimately in failure of the battery. Charging a hot battery (above 95°F [35°C]) results in reduced discharge capacity, affecting the performance of the radio. Motorola rapid-rate battery chargers contain a temperature-sensing circuit to ensure that batteries are charged within the temperature limits stated above.

LIMITED WARRANTY

MOTOROLA COMMUNICATION PRODUCTS

I. WHAT THIS WARRANTY COVERS AND FOR HOW LONG:

MOTOROLA INC. (“MOTOROLA”) warrants the MOTOROLA manufactured Communication Products listed below (“Product”) against defects in material and workmanship under normal use and service for a period of time from the date of purchase as scheduled below:

CP150/CP200 Portable Units	Two (2) Years
Product Accessories	One (1) Year

Motorola, at its option, will at no charge either repair the Product (with new or reconditioned parts), replace it (with a new or reconditioned Product), or refund the purchase price of the Product during the warranty period provided it is returned in accordance with the terms of this warranty. Replaced parts or boards are warranted for the balance of the original applicable warranty period. All replaced parts of Product shall become the property of MOTOROLA.

This express limited warranty is extended by MOTOROLA to the original end user purchaser only and is not assignable or transferable to any other party. This is the complete warranty for the Product manufactured by MOTOROLA. MOTOROLA assumes no obligations or liability for additions or modifications to this warranty unless made in writing and signed by an officer of MOTOROLA. Unless made in a separate agreement between MOTOROLA and the original end user purchaser, MOTOROLA does not warrant the installation, maintenance or service of the Product.

MOTOROLA cannot be responsible in any way for any ancillary equipment not furnished by MOTOROLA which is attached to or used in connection with the Product, or for operation of the Product with any ancillary equipment, and all such equipment is expressly excluded from this warranty. Because each system which may use the Product is unique, MOTOROLA disclaims liability for range, coverage, or operation of the system as a whole under this warranty.

II. GENERAL PROVISIONS:

This warranty sets forth the full extent of MOTOROLA's responsibilities regarding the Product. Repair, replacement or refund of the purchase price, at MOTOROLA's option, is the exclusive remedy. THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. IN NO EVENT SHALL MOTOROLA BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SUCH PRODUCT, TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW.

III. STATE LAW RIGHTS:

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION OR EXCLUSIONS MAY NOT APPLY.

This warranty gives specific legal rights, a there may be other rights which may va state to state.

IV. HOW TO GET WARRANTY SER

You must provide proof of purchase the date of purchase and Product item nber) in order to receive warranty servic so, deliver or send the Product item, ation and insurance prepaid, to an au arranty service location. Warranty ser provided by Motorola through authorized warranty service f you first contact the company which e Product (e.g., dealer or communica e provider), it can facilitate your obtai y service. You can also call Motoro 927-2744 US/Canada.

V. WHAT THIS WARRANTY DOES NOT COVER:

A Defects or damage resulting from use of the Product in other than its normal and customary manner.

B Defects or damage from misuse, accident, water, or neglect.

C Defects or damage from improper testing, operation, maintenance, installation, alteration, modification, or adjustment.

D Breakage or damage to antennas unless caused directly by defects in material workmanship.

E A Product subjected to unauthorized Product modifications, disassemblies or repairs (including, without limitation, the addition to the Product of non-Motorola supplied equipment) which adversely affect performance of the Product or interfere with Motorola's normal warranty inspection and testing of the Product to verify any warranty claim.

F Product which has had the serial number removed or made illegible.

G Freight costs to the repair depot.

H A Product which, due to illegal or unauthorized alteration of the software/ firmware in the Product, does not function in accordance with MOTOROLA's published specifications or the FCC type acceptance labeling in effect for the Product at the time the Product was initially distributed from MOTOROLA.

I Scratches or other cosmetic damage to Product surfaces that does not affect the operation of the Product.

J Normal and customary wear and tear.

VI. PATENT AND SOFTWARE PROVISIONS:

MOTOROLA will defend, at its own expense, any suit brought against the end user purchaser to the extent that it is based on a claim that the Product or parts infringe a United States patent, and MOTOROLA will pay those costs and damages finally awarded against the end user purchaser in any such suit which are attributable to any such claim, but such defense and payments are conditioned on the following:

A that MOTOROLA will be notified promptly in writing by such purchaser of any notice of such claim;

B that MOTOROLA will have sole control of the defense of such suit and all negotiations for its settlement or compromise; and

C should the Product or parts become, or in MOTOROLA's opinion be likely to become, the subject of a claim of infringement of a United States patent, that such purchaser will permit MOTOROLA, at its option and expense, either to procure for such purchaser the right to continue using the Product or parts or to replace or modify the same so that it becomes non-infringing or to grant such purchaser a credit for the Product or parts as depreciated and accept its return. The depreciation will be an equal amount per year over the lifetime of the Product or parts as established by MOTOROLA.

MOTOROLA will have no liability with respect to any claim of patent infringement which is based upon the combination of the Product or parts furnished hereunder with software, apparatus or devices not furnished by MOTOROLA, nor will MOTOROLA have any liability for the use of ancillary equipment or software not furnished by MOTOROLA which is attached to or used in connection with the Product. The foregoing states the entire liability of MOTOROLA with respect to infringement of patents by the Product or any parts thereof.

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VII. GOVERNING LAW:

This Warranty is governed by the laws of the State of Illinois, USA.

Notes:

INTRODUCTION

CONVENTIONAL RADIO SYSTEMS

...nal radio systems typically refer to ...mmunications through a single ...tional systems also allow ...d communication coverage ...ges through a repeater. ...e by multiple users ... the channel or ...erify that the

- Monitor and Sticky Monitor
- System Scan with Single Priority Scan

Signaling Features

- MDC 1200 Signaling (Available for 5W models only)
  - Selective Radio Inhibit Decode
  - Radio Check Decode

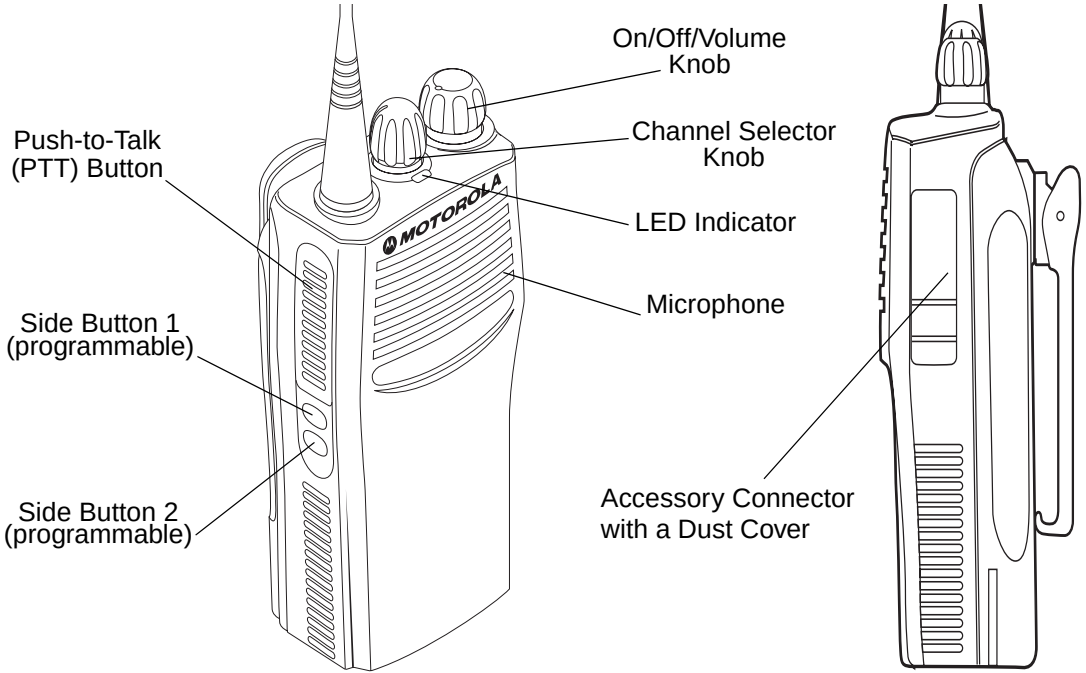
Quik...

Notes:

RADIO OVERVIEW

PARTS OF THE RADIO

CP150/CP200 Models



On/Off/Volume Knob

Turns the radio on or off, and adjusts the radio's volume.

Channel Selector Knob

Switches the radio to different channels.

Push-to-Talk (PTT) Button

Press and hold down this button to talk (transmit); release it to listen.

Microphone

When sending a message, hold the microphone 1 to 2 inches (2.5 to 5 cm) away from your mouth, and speak clearly into it.

LED Indicator

Indicates power-up, transmit, receive, scan status, Call Alert™, Selective Call, Monitor, and battery status.

Basic Features

LED State/Color	Indication
Red	Transmitting
Flashing Red	Receiving
Scan	
Flashing Green	Scanning for activity
Call Alert†	
Flashing Yellow	Indicates receiving a Call Alert
Selective Call†	
Flashing Yellow	Indicates receiving a Selective Call
Sticky Monitor/Open Squelch	
Yellow	While monitoring
Low Battery	
Flashing Red when transmitting	Low battery level

†Available for 4W and 5W models only.

Battery Charge Status

You can check battery charge status if your dealer has preprogrammed one of the programmable buttons. Hold down the preprogrammed **Battery Indicator** button. The charge status is shown by the color of the radio's LED indicator.

Battery Level	LED Indicator
Good	Green
Sufficient	Yellow
Low	Flashing Red
Very Low	None

Programmable Buttons

The two side buttons on your radio can be programmed by your dealer as shortcuts to various radio features.

Check with your dealer for a complete list of functions your radio supports.

Some buttons can access up to two features, depending on the type of button press:

- **short press** — quickly pressing and releasing the programmable buttons
- **long press** — pressing and holding the programmable buttons for a period of time (default 1 1/2 seconds or programmed value) before releasing
- **hold down** — pressing and holding down the programmable buttons while checking status or making adjustments

Depending on how your radio has been programmed by your dealer, these functions are activated **EITHER** through a short press **OR** a long press, but **NOT** both.

A summary of programmable radio features and corresponding page references appears beginning on page 14.

In the "Feature" column, have your dealer write down the programmable buttons next to the features that have been programmed to them.

Feature	Short Press/Long Press	Hold Down	Page	Button
Battery Indicator	—	Checks the battery charge status.	13	
Sticky Monitor/ Monitor	A long press of the Monitor button initiates. A short press of the Monitor button cancels.	Monitors the selected channel for any activity.	24	
Volume Set	Sounds a tone for adjusting the radio's volume level.		23	
Voice Operated Transmission (VOX)	Toggle VOX on and off.	—	25	
Power Level†	Toggles your radio's transmit power level between High and Low power.	—	27	
Repeater/ Talkaround	Toggles between using a repeater and transmitting directly to another radio.	—	26	
Squelch	Toggles your radio's squelch level between tight and normal squelch.	—	26	

†Available for 4W and 5W models only.

Feature	Short Press/Long Press	Hold Down	Page	Button
Scan	Starts or stops the Scan operation.	—	31	
Nuisance Channel Delete	Deletes a nuisance channel while scanning.	—	31	

INDICATOR TONES

High pitched tone ☐ Low pitched tone ■

	Self Test Pass Tone
	Self Test Fail Tone
	Positive Indicator Tone
	Negative Indicator Tone

AUDIO INDICATORS FOR PROGRAMMABLE BUTTONS

Some programmable buttons use tones to indicate one of two modes:

Button	Positive Indicator Tone	Negative Indicator Tone
Scan	**Start** scan	**Stop** scan
Power Level†	**High** power selected	**Low** power selected
Squelch	**Tight** squelch	**Normal** squelch
Repeater/ Talkaround	**Does not use** repeater	**Uses** repeater
VOX	VOX **enabled**	VOX **disabled**

†Available for 4W and 5W models only.

IMPROVED AUDIO FEATURES

Companding

Companding is a feature that allows further improvement of voice quality. It compresses your voice at transmission, and expands it when receiving while simultaneously reducing extraneous noise. However, to enjoy this benefit, **all** transmitting and receiving radios must have this feature activated.

GETTING STARTED

BATTERY INFORMATION

Charging Your Battery

If a battery is new, or its charge level is very low, you will need to charge it before you can use it. When the battery level is low and the radio is in transmit mode you will see the LED indicator flash red. Upon release of the PTT button, you will hear an alert tone.

Note: Batteries are shipped uncharged from the factory. Always charge a new battery 14 to 16 hours before initial use, regardless of the status indicated by the charger.

Note: Do not use the wall charger and desktop charger at the same time when charging.

WALL CHARGER

Note: Do not use the wall charger if using lithium-ion (Li-Ion) or nickel-metal hyride (NiMH) batteries. The wall charger is for nickel-cadmium (NiCd) batteries only.

To Charge the Battery

1 Turn the radio off.

2 Lift the dust cover to expose the audio accessory connector.

3 Insert the charging adapter into the accessory connector.

4 Plug the charging adapter into an electrical outlet.

- The LED on the charging adapter lights Red while the charger is plugged into an electrical outlet.

Note: Do not leave the charger connected to the radio when it is not connected to the electrical outlet.

5 Unplug the charger from the electrical outlet and radio after 10 hours.

Note: After the initial charge of 14 to 16 hours, do not charge the battery more than 10 hours.

DESKTOP CHARGERS

Rapid Charger

1 Turn the radio off.

2 Place the battery, with or without the radio, in the charger pocket.

- The charger LED indicates the charging progress.

LED color	Status
No LED Indication	Battery inserted incorrectly or battery not detected.
Single Green Flash	Successful charger power-up.
Flashing Red*	Battery unchargeable or not making proper contact.
Steady Red	Battery is in Rapid charge mode.
Flashing Yellow	Battery in charger but waiting to be charged. The battery temperature may be too hot or too cold. The voltage may be lower than the predetermined threshold level for charging.
Flashing Green†	Battery 90% (or more) charged. Trickle charging.
Green	Battery fully charged.

* Remove the battery from the charger and use a pencil eraser to clean the three metal contacts at the back of the battery. Place the battery back into the charger. If the LED indicator continues to flash red, replace the battery.

† A standard battery may require 90 minutes to charge to 90% capacity. Even though new batteries might prematurely indicate a full charge (steady green LED), charge the battery for 14 to 16 hours prior to initial use for best performance.

A list of Motorola authorized batteries and battery chargers appears on page 35. The listed chargers will charge only Motorola authorized batteries. Other batteries may not charge.

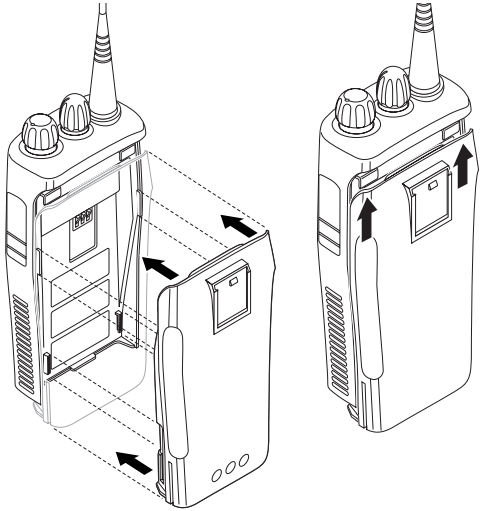
Slow Charger

1. Turn the radio off.
2. Place the battery, with or without the radio, in the charger pocket.
   - The charger LED indicates the charging progress.

LED color	Status
No LED Indication	Battery inserted incorrectly or battery not detected.
Steady Red	Battery is in over night charge mode. The battery is fully charged after 11 hours.

ACCESSORY INFORMATION

Attaching the Battery

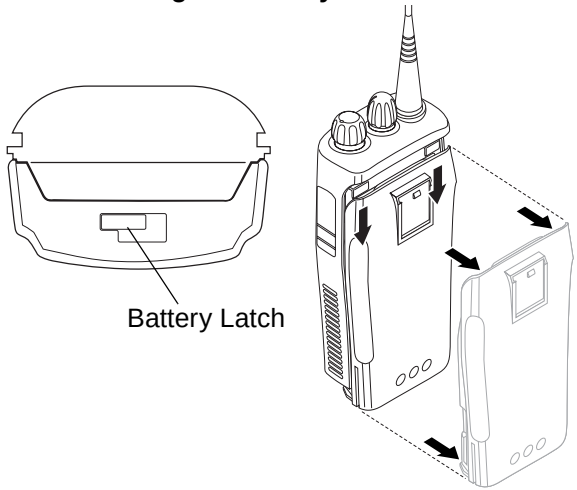


1 Align the battery to the battery rails on the back of the radio (approximately 1/2 in. from the top of the radio.)

2 Press the battery firmly to the radio and slide the battery upward until the latch snaps into place.

3 Slide the battery latch, located on radio bottom, into the lock position.

Removing the Battery

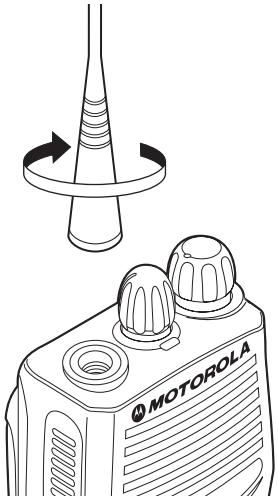


1 Turn off the radio if it is turned on (see page 23).

2 Slide the battery latch into the unlock position. Disengage by pushing downward and holding the latch towards the front of the radio.

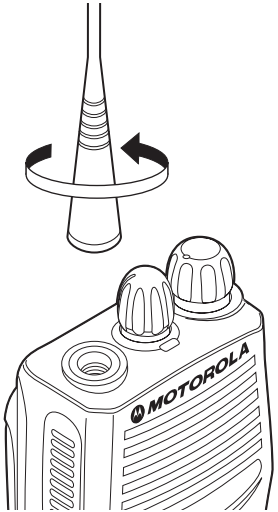
3 With the battery latch disengaged, slide the battery down from the top of the radio about 1/2 in. Once the battery is free from the battery rails, lift it directly away from the radio.

Attaching the Antenna



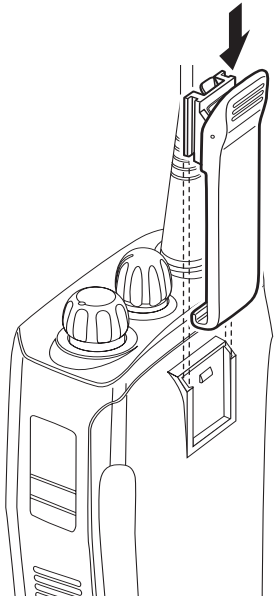
Turn the antenna clockwise to attach it.

Removing the Antenna



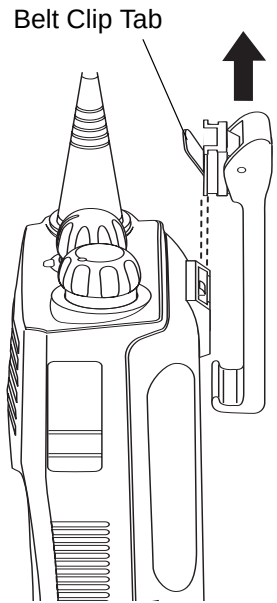
Turn the antenna counter-clockwise to remove it.

Attaching the Belt Clip



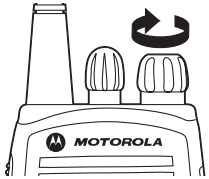
1	Align the grooves of the belt clip with those of the battery.
2	Press the belt clip downward until you hear a click.

Removing the Belt Clip



1	Use a key to press the belt clip tab away from the battery to unlock the belt clip.
2	Slide the belt clip upward to remove it.

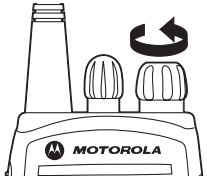
TURNING THE RADIO ON OR OFF



ON

Turn the **On/Off/ Volume Control** knob clockwise. If power-up is successful, you will hear the Self-Test Pass Tone ( ) and see the LED flash green.

If the radio fails to power up, you will hear the Self Test Fail Tone ( ).



OFF

Turn the **On/Off/ Volume Control** knob counter-clockwise until you hear a click.

ADJUSTING THE VOLUME

1. Hold down the **Volume Set** button (see page 14); you will hear a continuous tone.
2. Turn the **On/Off/Volume Control** knob to the desired volume level.
3. Release the **Volume Set** button.

SELECTING A RADIO CHANNEL

Your radio offers 4 or 16 channels.

Note: Due to government regulations, some channels may not be programmed. Ask your dealer for more information.

To select a channel, turn the **Channel Selector** knob clockwise or counterclockwise until you reach the desired channel.

RECEIVING

1. Turn your radio on.
2. Adjust the radio's volume (see page 23).
3. Switch to the desired channel. To respond, hold the radio in a vertical position, press the **PTT**, and talk at a distance of about 1 to 2 inches (2.5 to 5 cm) from the microphone.

MONITORING

It is important to monitor traffic before transmitting to ensure that you do not "talk over" someone who is already transmitting.

1. Press and hold the preprogrammed **Monitor** button to access channel traffic.
2. Once channel traffice has cleared, proceed with your call by pressing the **PTT** button.
3. A long press of the preprogrammed **Monitor** button places the radio in Sticky Monitor mode.
   - You hear a high-pitched tone.

   A short press of the **Monitor** button cancels Sticky Monitor mode and returns the radio to normal operation.

TRANSMITTING

1. Turn your radio on.
2. Use the **Channel Selector** knob to select the desired channel.
3. Hold the radio in a vertical position, press the **PTT**, and talk at a distance of about 1 to 2 inches (2.5 to 5 cm) from the microphone.
4. Release the **PTT** to listen.

VOX OPERATION

When hands-free operation is desired, your radio can be activated by voice alone using the VOX feature when you speak through an accessory that is connected to your radio.

Connecting a VOX Headset

1. Turn off your radio.
2. Connect the VOX accessory to your radio and turn the radio on.

Enabling or Disabling VOX

To enable or disable VOX operation, press the preprogrammed **VOX** button (see page 14).

Note: Pressing the PTT button disables VOX.

– or –

You can select channels to enable or disable VOX as preprogrammed by your dealer.

1. Select a channel that has been preprogrammed by your dealer to enable VOX.

   Note: Pressing the **PTT** button disables VOX.
2. Select a channel that has not been preprogrammed by your dealer to disable VOX.

ENABLE/DISABLE HEADSET SIDETONE

Your dealer can program your radio so you can hear your voice through a headset while you speak.

VOX Headset

1. Turn off your radio.
2. Connect the VOX accessory to your radio.
3. Turn the radio on. During transmit, you will hear your voice through the headset while you speak.

4 To disable the headset sidetone, turn off your radio and turn the radio on again.

Non-VOX Headset with In-Line PTT

1 Turn off your radio.

2 Connect the non-VOX accessory to your radio.

3 Press and hold the In-line PTT on your headset.

4 Turn the radio on and release the PTT once the radio has completed start-up. During transmit, you will hear your voice through the headset while you speak.

5 To disable the headset sidetone, turn off your radio and turn the radio on again.

REPEATER OR TALKAROUND MODE

Talkaround Mode enables you to communicate with another radio when either:

- the repeater is not operating

  – or –

- your radio is out of the repeater's range but within communicating distance of another radio.

Press the preprogrammed **Repeater/ Talkaround** button (see page 14) to toggle between Repeater mode and Talkaround Mode.

SETTING TIGHT OR NORMAL SQUELCH

Use this feature to filter out nuisance (unwanted) calls and/or background noise. However, tightening squelch could cause calls from remote locations to be filtered out as well. In this case, normal squelch may be more desirable.

Press the preprogrammed **Squelch** button (see page 14) to toggle between tight and normal squelch.

SETTING THE POWER LEVEL

(Available for 4W and 5W models only)

Each channel in your radio has a predefined transmit power level that can be changed.

- *High power* allows you to reach a radio that is farther away.
- *Low power* conserves the battery's charge.

Press the preprogrammed **Power Level** button (see page 14) to toggle between low and high power.

Notes:

RADIO CALLS

RECEIVING A SELECTIVE CALL
(Available for 4W and 5W models only)

When you receive a Selective Call:

- The LED indicator flashes yellow, if programmed by your dealer.
- You hear two high pitched tones.

1. To acknowledge the call, press and release the **PTT** button.
2. Press and hold the **PTT** button to talk; release to listen.

RECEIVING A CALL ALERT PAGE
(Available for 4W and 5W models only)

When you receive a Call Alert page:

- The LED indicator flashes yellow, if programmed by your dealer.
- You hear four high pitched tones.

To acknowledge the page, press and release the **PTT** button; to cancel the page, press any other key.

Notes:

S l

r radio is pped with the Scan feature, allows you onitor multiple channels ctivity. The io will stop on a it detects activity on it.

atically switches to a channel hen it detects activity.

green during a an when the radio

le in your

while hat channel for er activity has ed to as “hangtime”. gtime you may respond by he **PTT** button.

Note: The LED scan indicator stops blinking while the radio is in hangtime. If the **PTT** button is not pressed during the preprogrammed hangtime, the radio returns to scanning channels.

STARTING SYSTEM SCAN

Press the preprogrammed **Scan** button (see page 14).

STOPPING SYSTEM SCAN

ess the preprogrammed **Scan** button.

ST ING AUTO SCAN

Auto Sca atically starts scanning once a channel wi Scan enabled is selected.

Select the chan el that your dealer has progra Auto Scan.

TOPP CAN

Select a chan een preprogrammed h

DELETING A NUISANCE CHANNEL

Note: Your dealer must preprogram a button to **Nuisance Delete** (see page 14) to access this feature.

If a channel continually generates unwanted calls or noise (a “nuisance” channel), you can temporarily remove it from the scan list:

1 While the radio is on the Nuisance Channel, press the preprogrammed **Nuisance Channel Delete** button until you hear a tone.

2 Release the **Nuisance Channel Delete** button. The nuisance channel is deleted.

Note: You cannot temporarily delete the channel that has been preprogrammed as your designated scan channel, a priority channel, or the last remaining channel in the scan list.

Restoring a Channel to the Scan List

1 Power off the radio. Once the radio is powered on again, the deleted nuisance channels are restored to the scan list.

– or –

1 Press the preprogrammed **Scan** button to stop the scan.

2 Press the preprogrammed **Scan** button again to start scanning again. The Deleted Nuisance Channels are restored to the scan list.

– or –

1 Select a different channel. Once you return to the original channel, the deleted nuisance channels are restored to the scan list.

PRIORITIZING A SCAN LIST MEMBER

You may want your radio to scan a specific channel more frequently for calls. Your dealer can prioritize scan list members for you. Check with your dealer for details.

Priority Channel	Scanning Sequence
None specified	Ch1➠Ch2➠Ch3➠ Ch4➠...Ch1
Channel **2**	Ch**2**➠Ch1➠Ch**2**➠Ch3➠ Ch**2**➠Ch4➠Ch**2**➠...Ch1

Even though your radio has switched to a non-priority channel, it will still check for activity on the priority channel. If activity is detected, the radio will switch to the priority channel.

Notes:

HEADSETS

RLN5411	Ultra-Lite Breeze Behind the Head Headset
PMMN4001	Ultra-Lite Earset with Mic and PTT
HMN9013	Lightweight Headset w/o In-line PTT
RMN4016	Lightweight Headset with In-line PTT
RLN5238	Lightweight Headset with In-line PTT, NFL Style
HMN9021	Medium Weight Over the Head Dual Muff Headset
HMN9022	Medium Weight Behind the Head Dual Muff Headset
BDN6647	Medium Weight Single Speaker Headset
BDN6648	Heavy Duty Dual Muff Headset with Noise Canceling Microphone
RMN5015	Heavy Duty Dual Muff Racing Headset (requires RKN4090 Headset Adapter Cable)
RMN4051	2-Way Hard Hat Mount, Black, Noise Reduction Rating (22 dB) (requires RKN4094)
RMN4054	Receive-Only Hard Hat Mount Headset w/3.5mm Right Angle Plug
RMN4055	Receive-Only Headband Style Headset w/3.5mm Right Angle Plug
RKN4090	Adapter Cable (for use with headset RMN5015)
RKN4094	In-Line PTT Adapter (for use with headset RMN4051)
REX4648	Replacement Foam Ear Pad and Windscreen Kit (for use with headsets RMN9013 & RMN4016)
7580376E34	Replacement Ear Seals (for use with headsets HMN9021 & HMN9022)
5080371E66	Replacement Ear Pad (for use with headset BDN6647)
3580371E59	Replacement Wind Screen (for use with headset BDN6647)

SURVEILLANCE ACCESSORIES

HMN9752	Earpiece with Volume Control, 1-Wire (plastic earloop) (Beige)
HMN9727	Earpiece without Volume Control, 1-Wire (plastic earloop) (Beige)
RLN4894	Earpiece without Volume Control, 1-Wire (plastic earloop) (Black)
HMN9754	Earpiece with Microphone & PTT Combined, 2-Wire (Beige)
RLN4895	Earpiece with Microphone & PTT Combined, 2-Wire (Black)

RLN5198 Earpiece with Microphone & PTT Combined, 2-Wire w/Low Noise Kit NTscn (83)-7.3(71 (Beige))]TJ -8.1429 -1.6241 TD 0 Tc -0.0524 Tw [(BDN67)-7.9(2)-0.4(0)-3797.4(F)-5.5(le)22.2(xib)22.2(l)-3cn CR

HMN9036 Earbud with Microphone & PTT Cmbined, 2-Wire (Black)

HLN9132 Earbud Single Wire Receiv (Black)

NT8370 Extrem

NT(8371)-3857.5(L)-7.9(o)14.6(w Noise)-7.9(K)5.3(i)-3cn t

RLN4760 Small Custom Clear Earp Right Ear (for use with low noise kit NTsc3 (83)-7.6(71))]TJ [illegible] -3909.2(Small Custom Clear Left Ear (fw noise kit NTsc3 (83)-7.6(71))]TJ -8.1429 -1.6316 TD 0.0002 Tc [(RLN) 7.1(4761)-3910(Me)-7.7(dium Right Ear (for use with low noise kit NTsc3 (83)-7.6(71))]TJ ET 136.56 179.4 292.56 -0.48 re f 136.08 244.38 Left Ear (fw noise kit NTsc3 (837)-7.6(1))]TJ -8.1353 -1.6241 TD 0.0001 Tc low noise kit NT(8371) (Beige))]TJ -8 low noise kit NT(8

REMOTE SPEAKER MICROPHONES

EAR MICROPHONE SYSTEMS

HMN9030er Micro

HKN9094

0180358B38	Ring Push-to-Talk Switch (for use with ear microphone systems BDN6646 & BDN6706)
0180300E83	Body Switch Push-to-Talk (for use with ear microphone systems BDN6646 & BDN6706)
0180300E25	Ear Guard with Adjustable Loop
0180358B32	Ear Holder, Black, Small
0180358B33	Ear Holder, Black, Medium
0180358B34	Ear Holder, Black, Large
0180358B35	Ear Holder, Clear, Small
0180358B36	Ear Holder, Clear, Medium
0180358B37	Ear Holder, Clear, Large

ANTENNAS

NAD6502_R	VHF Heliflex Antenna 14cm, 146-174 MHz
HAD9742	VHF Stubby Antenna, 9cm, 146-162 MHz
HAD9743	VHF Stubby Antenna, 9cm, 162-174 MHz
NAE6522_R	UHF Heliflex Stubby Antenna 9cm, 438-470 MHz
8505816K26	UHF Heliflex Stubby Antenna 7.1cm, 470-520 MHz
NAE6483_R	Flexible Whip Antenna, 403-520 MHz

MISCELLANEOUS

RLN5500	Accessory Retainer Kit (for use with any audio accessory that needs to be secured to the radio due to demanding customer environments)
TDN9327	Portable Radio Hanger for door panels up to 2.75 inch (slides over and hangs from the door panel in vehicle, radio belt clip required)
TDN9373	Portable Radio Hanger for door panels up to 2.75 to 3.25 inch (slides over and hangs from the door panel in vehicle, radio belt clip required)

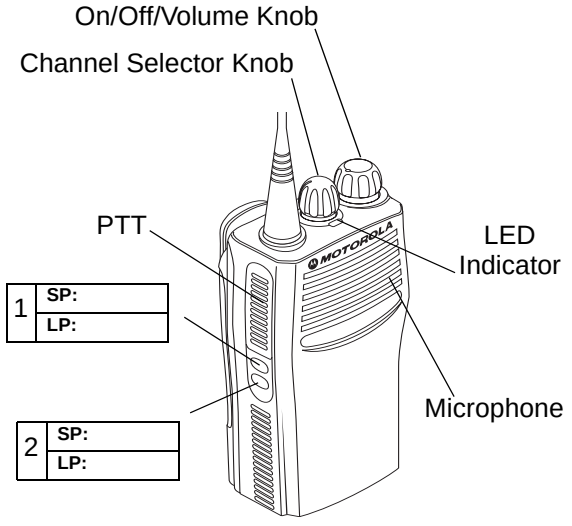
LED Indicators

LED State/Color	Indication
Red Flashing Red	Transmitting Receiving
Scan Flashing Green	Scanning for activity
Low Battery Flashing Red while transmitting	Low battery level
Call Alert† Flashing Yellow	Indicates receiving a Call Alert
Selective Call† Flashing Yellow	Indicates receiving a Selective Call
Sticky Monitor/ Monitor Yellow	While monitoring.
Battery Charge Status Green Yellow Flashing Red None	 Good Sufficient Low Very Low

†Available for 4W and 5W models only.

MOTOROLA

CP150™/CP200™ Quick Reference Card



NOTE: Enter the functions for your radio's two programmable buttons in the boxes provided above. **SP** represents *Short Press*, while **LP** represents *Long Press*.

Turning On the Radio

- Turn **On/Off/Volume Control** knob clockwise. If the radio successfully powers up, you will hear the Self Test Pass tone and see the LED light green. If the radio fails to power up, you will hear the Self Test Fail tone.

Turning Off the Radio

- Turn **On/Off/Volume Control** knob counter-clockwise until you hear a click.

Adjusting the Radio Volume

1. Press and hold **Volume Set** button (preprogrammed by your dealer) until you hear a continuous tone.
2. Turn **On/Off/Volume Control** knob to adjust volume level.
3. Release **Volume Set** button at desired volume level.

Selecting a Radio Channel

- Turn **Channel Selector** knob clockwise or counter-clockwise to reach desired channel.

Receiving

1. Turn on the radio.
2. Adjust the volume level.
3. Select the radio channel.

Transmitting

1. With radio on, turn **Channel Selector** knob to required channel.
2. Press **PTT** and speak clearly with mouth about 2.5 to 5 cm (1 to 2 inches) away from microphone.
3. Release **PTT** when call is completed.

Audio Indicators for Programmable Buttons

Programmable Buttons	Positive Indicator Tone	Negative Indicator Tone
Scan	**Start** Scan operation	**Stop** Scan operation
Power Level†	Radio transmits at **high** power	Radio transmits at **low** power
Squelch	Radio operates in **tight** squelch	Radio operates in **normal** squelch
Repeater/ Talkaround	Radio **DOES NOT** use the repeater	Radio uses the repeater
VOX	VOX enabled	VOX disabled

†Available for 4W and 5W models only.

Starting or Stopping Scan

1. Press the preprogrammed **Scan** button to start scan. The LED indictor blinks green during scan operation. Or, select a channel that has been preprogrammed for Auto Scan to start scan.
2. Press the **Scan** button again to stop scan. Or, select a channel that has not been preprogrammed for Auto Scan to stop scan.

Deleting a Nuisance Channel

1. With radio on a Nuisance Channel, press and hold the preprogrammed **Nuisance Delete** button until you hear a tone.
2. Release the **Nuisance Delete** button.